

Appendix D

Description of Key Components and Functions

Information Technology Investment Management (ITIM) Business Process Flow Diagram.
The following diagram graphically depicts an overall view of the ITIM business process.

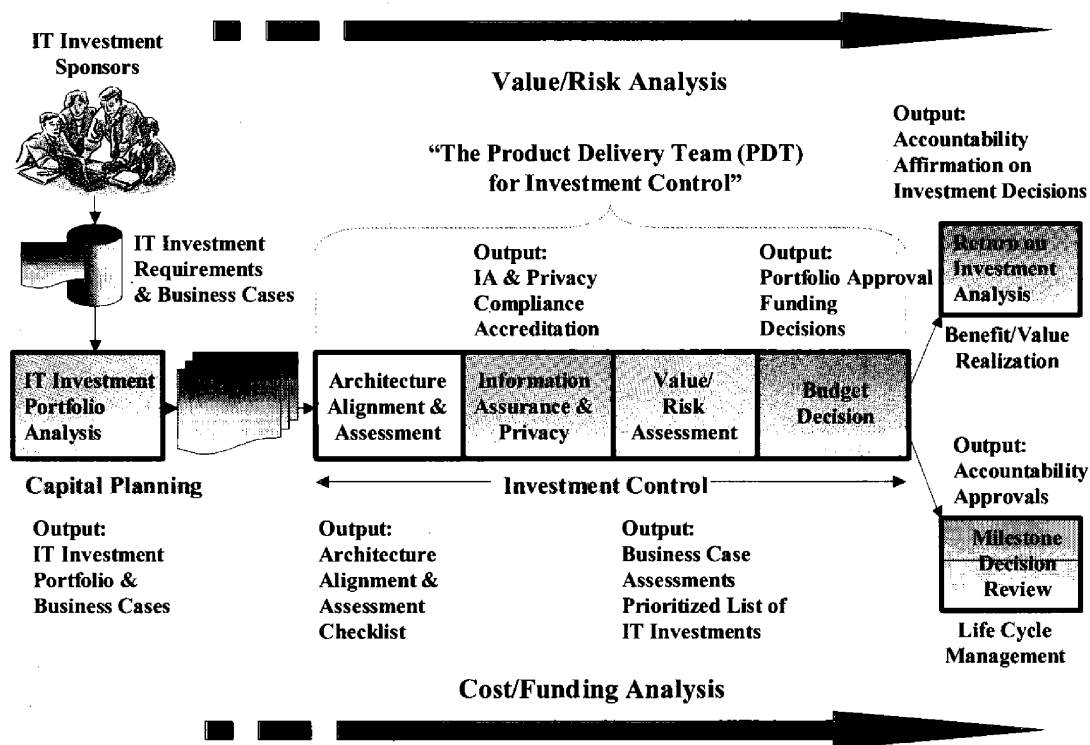


Figure D-1

Capital Planning. Capital planning is the management process used to identify IT investment requirements that will improve the Corps' mission, program, and project delivery performance to the Nation, the Army, and its customers as well as enhance the effective and efficiency of its business processes. Annually the USACE CIO issues broad guidance in the Command Consolidated Guidance (CCG) document and more detailed, specific guidance and instructions in a memorandum to HQUSACE Staff Principles and USACE Commanders. The Director or Chief of Information Management in each command is responsible to their commander for the identification of IT investment requirements and the funding necessary to acquire, install, operate, support, and maintain the IT investment asset. Each command enters its requirements into the IT Investment Portfolio System (ITIPS). ITIPS is a single database that contains each command's IT Investment Portfolio. Each command, appropriate to its delegated authority, manages its own IT Investment Portfolio. Each MSC, under the Regional Business Center framework, manages, in aggregate, its MSC IT Investment Portfolio. The USACE CIO manages, in total, the USACE IT Investment Portfolio. The Investment Assessment Team (IAT) identifies major IT investments in the USACE IT Investment Portfolio that must come under HQUSACE management, and prepares and presents to the USACE CIO the Corps' investment

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funding requirements by organization, business domains, lines-of-business, and IT class for the past, current, and future budget cycles. This provides a holistic view as to where IT investment funding is required, and notionally indicates the relative distribution of where funding has been provided in the past and where it is needed to meet current and future funding requirements. Legacy IT investments that exceed the inflation rate are “flagged” for further investigation.

Investment Control. Investment control is the management process used to select, control, and evaluate which IT investments will be ranked and recommended for funding using the information submitted by IT investment sponsors, through their commands, in the capital planning process. Included in the investment control management process are other management processes, functions, and mechanisms that support and facilitate the execution of the investment control process. In the investment control management process, IT professionals, IT investment functional proponents, lines-of-business program managers, and senior executives are involved. Management involvement by lines-of-business program managers and senior executives is the critical ingredient for making IT investment decisions that represent the best IT investment portfolio choices consistent with the Corps’ strategic goals and mission requirements. Lines-of-business program managers and senior executives serve on the Cross-Functional Assessment Team (CFAT) and Program Budget Advisory Councils (PBACs). The IT investment reviews performed by the IAT, CFAT and PBACs provide the opportunity to identify information systems that would result in shared benefits or costs across the Corps and well as DoD, DA, other Federal agencies. When these opportunities occur, the IT Investment Decision Authority will direct the appropriate IT sponsors to coordinate and partner to optimize benefits and costs sharing. IT investment funding will not be provided to duplicative or similar requirements.

Architecture Alignment and Assessment (AAA). Architecture alignment and assessment is the management process used to evaluate how well IT investments are aligned with the Corps’ Enterprise Architecture (CEA). IT investments that are fully aligned, with each architecture view (Business, Information, Application, and Technical), are more likely to provide the benefits or value articulated by their sponsors. An IT investment that is less or only partially aligned will generally not produce the benefits or value anticipated. New IT investment initiatives or proposed major enhancements (modernization or upgrade) to existing IT investment are evaluated, by the AAA Team, using an Architecture Alignment and Assessment Checklist (each architectural view has its own checklist). With each architectural view, a numeric value is assigned based upon meeting checklist criteria -- the higher the numeric value, the greater the alignment. IT investments that fail their CEA alignment and assessment review will not be recommended for approval by the Architecture Alignment and Assessment Team. For these IT investments to be considered for funding in the budget decision process, the IT sponsor must first obtain a waiver from the IT Investment Decision Authority.

Information Assurance (IA) and Privacy. IA and privacy policies, guidance, processes, and procedures focus on protecting the Corps’ IT infrastructure assets, information systems, and data/information against unauthorized use, denial of service, and data/information disclosure, alteration, or destruction. The IA and privacy management process ensures the availability, confidentiality, and integrity of information processed within the USACE IT infrastructure for USACE information systems as well as provides a measure of confidence that the IT investments incorporate security features and/or functionality appropriate to their risks. The Information

Assurance Assessment and Privacy (IAAP) Team evaluates IT investments to determine whether or not, and to what degree, appropriate security/privacy features, functionality, procedures, practices, and methodologies have been included and/or have been implemented and are being used. The IA and privacy management process mediates and enforces information security and privacy requirements. USACE has established and implemented a USACE-wide IT Security Program in accordance with the Clinger-Cohen Act, Computer Security Act, Government Information Security Reform Act, Information Infrastructure Protection Act, OMB Circular A-130, and other higher authority requirements. All information systems and networks must undergo a security review and receive accreditation under the Defense Information Technology Security Certification and Accreditation Process (DITSCAP). All information systems and networks must have a final or interim approval to operate.

Value/Risk Assessment. Value/risk assessment is the management process used to determine the overall value and risks associated with IT investments, in particular for major IT investments that are information systems. Value and risk criterion, weighted based upon importance, is used to assign a “rating.” The USACE CIO submits the USACE IT Investment Portfolio and major IT investment business cases, after appropriate reviews by other ITIM management process teams, to the Cross-Functional Assessment Team (CFAT). The CFAT applies value/risk criterion, and its collective lines-of-business knowledge, to assign a rating to an IT investment and to quantitatively, qualitatively, and functionally compare and prioritize IT investments. A high value and low risk rating for an IT investment indicates its potential to be prioritized ahead of other IT investments and be given serious consideration for funding. The USACE CFO integrates the prioritized IT investments with other USACE funding requirements, and the USACE CIO and CFO jointly present the prioritized IT investments recommendations to the Program Budget Advisory Councils (Junior and Senior PBAC). Figure D-2 illustrates value/risk

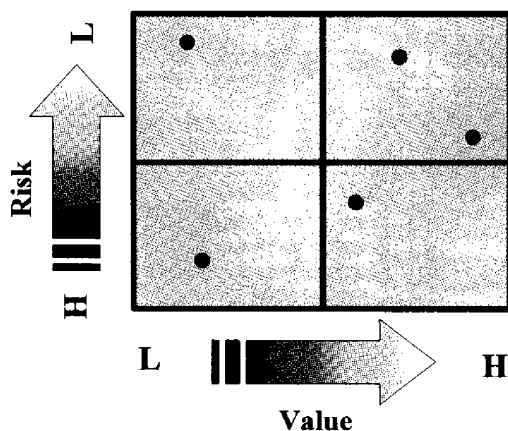


Figure D-2

assessment and the quantitative and qualitative comparison of IT investments. Each “dot” represents a specific IT investment. The “dot” in lower left corner (third quadrant) of the four quadrant square is an IT investment determined to have low value and high risk where as the “dot” in the upper center of the second quadrant is an IT investment determined to have high value and low risk. IT investments that fall into the second quadrant generally represent the better IT investment choices for the enterprise and would be ranked higher on the prioritized list for funding consideration.

Budget Decision. Budget decision is the management process used to finalize what mission, program, and project investment and operating requirements will be funded, partially funded or not funded. The budget decision management process is part of the budget business process. The USACE CIO and CFO share a joint responsibility for integrating IT capital planning and investment control with those processes used for making budget, financial, and program management decisions. Critical in the budget decision process is determining whether or not to

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undertake a particular investment in an information system based upon its projected return on investment. The quantitative and qualitative comparison assessment done by the CFAT provides valuable information to assist senior manager and executives in making investment decisions in the budget decision process. The Junior PBAC is authorized to make adjustments and recommend these changes to the Senior PBAC. The Senior PBAC members review the funding recommendations and offer final changes to the Senior PBAC Chairperson (the Commander, USACE or his designated representative) of decision. The Commander, USACE is the IT Investment Decision Authority for approving the USACE IT Investment Portfolio and for what IT investments are funded.

Benefit/Value Realization. IT investment sponsors must be able to quantitatively (benefit) and/or qualitatively (value) articulate the benefits/value for their IT investments. The ability to do this is what characterizes the funding provided as an investment verse a cost. Quantitative and/or qualitative performance measurements must be established and the appropriate data/information collected, analyzed, and reported by the IT investment sponsor to the Decision Authority. The IT Investment Decision Authority holds the IT investment sponsor accountable for benefit/valuation realization. IT investments that fail to achieve the anticipated benefits/value are subject to immediate review and if determined not to be correctable will be terminated. Benefit/value realization provides the means for obtaining information to verify whether or not there has been a return on the investment.

Life Cycle Management of Information Systems (LCMIS). LCMIS provides a disciplined project management approach for developing information systems and implements the acquisition precepts of Department of Defense (DoD) and Department of the Army (DA) regulations. LCMIS consists of a full five-phase life cycle management process that is consistent with USACE Project Management Business Process (PMBP) doctrine, and is scaled based on the IT investment's estimated program/project cost. Under DoD, DA, and USACE LCMIS regulations, approval authorities are delegated as milestone decision authorities (MDAs). MDAs partner with the IT investment sponsors to ensure the success of IT investment initiatives.

The LCMIS management process has five milestones, at which a decision review is conducted. Typically the first milestone decision review (MDR) is conducted at Milestone 0, the end of the Mission Need Justification phase. In each LCMIS phase and at MDRs, the Architecture Alignment and Assessment and Information Assurance and Privacy Teams are involved and perform their evaluation functions to ensure continued IT investment program/project alignment with the CEA and compliance with information security and privacy requirements. The LCMIS Team evaluates the IT sponsor's Systems Decision Paper, and supporting management and technical documentation, integrating into their evaluation the input from the AAA and IAAP Teams as well as its perspective on/about Government Paperwork Elimination Act requirements, and makes recommendations to the MDA as to whether or not the IT investment initiative, program, or project should be continued, adjusted, or terminated. The MDA issues a Milestone Decision Review memorandum to the IT investment sponsor approving continuation to the next LCMIS phases or halting the effort in the current phase until the guidance issues is satisfied. The LCMIS management process provides the means for USACE executives and senior managers to obtain timely information on/about the progress of IT initiatives, programs, and projects and whether the projected quantifiable benefits and qualitative values will be achieved or the whether

the risks have changes significantly enough to compromise success. Any IT major initiative, program, or project that exceeds its program cost by 10% or its schedule by 90 days will have an in-progress review (IPR) conducted jointly by the MDA and its investment sponsor.